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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,918	04/16/2004	Hisashi Miyazawa	448563/0199	1028
7590	06/08/2005		EXAMINER	
Lawrence Rosenthal Stroock & Stroock & Lavan LLP 180 Maiden Lane New York, NY 10038			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	
DATE MAILED: 06/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,918

Applicant(s)

MIYAZAWA ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27 and 37-68 is/are allowed.
- 6) ☒ Claim(s) 28-30 is/are rejected.
- 7) ☒ Claim(s) 31-35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/5/04 & 2/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Double patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 28-29, 31, 33-34, and 36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of US Patent number

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6,000,788 and over claims 1-7 of US Patent number 6,193,364. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim an ink cartridge for an ink jet recording comprising:

- a container;
- an ink supply port;
- an ink passage (equal an ink flow passage);
- an ink supply chamber (equal an ink chamber);
- a print head;
- a valve assembly (equal a negative pressure generating mechanism);
- an atmosphere communicating hole (equal an air communication passage);
- a capillary channel (equal a capillary passage); and
- an elastic membrane (equal film member).

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 28-29 are rejected under 35 USC 102 (a) as being anticipated Yuji (JP Pat. 08-174860).

Yuji discloses in Figures 1-10 an ink cartridge for an ink jet printer comprising:

- a container (1 or 500) (Figures 1 and 8);
 - an ink chamber (4 or 42) (Figures 1 and 8);
- an ink supply port (2 or 49) for supplying ink to the recording head (not shown) (Figure 8);
- an ink flow passage (43) connecting the ink supply port (49) to the ink chamber (42) (Figure 8);
 - an air communication passage (30, 31, 32) in fluid communication with the ink chamber (4) and the ambient atmosphere (Figure 1);
 - a negative pressure generating mechanism (44, 46, 47) disposed in the container (500) and disposed within the ink flow passage (43) (Figure 8);
 - an air communication valve (33) connected to the air communication passage (30, 31, 32), the air communication valve being normally closed, the air communication valve being adapted to be opened when the ink cartridge is mounted to the recording device (Figures 1); and
 - the air communication valve (33) being in fluid communication with the ambient atmosphere via a capillary passage (31) that is partially defined by a narrow groove formed in a surface of the container (1) and partially defined by a film member disposed adjacent the narrow groove (Figures 1 and 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 30 is rejected under 35 USC 103 (a) as being unpatentable over Yuji (JP Pat. 08-174860) in view of Terasawa (US Pat. 4,628,333).

Yuji discloses the basic features of the claims invention were stated above but does not disclose an air chamber is disposed within the ink cartridge, the air chamber being separate from

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the ink chamber, and an urging mechanism, the urging mechanism urging the air communication valve to be normally closed.

Terasawa discloses in Figure 4 an ink cartridge comprising an air chamber (11A) is disposed within the ink cartridge (1), the air chamber being separate from the ink chamber (a chamber stores ink 6), and an urging mechanism (12), the urging mechanism (12) urging the air communication valve (11, 1C) to be normally closed; wherein the air communication valve (11, 1C) blocks fluid communication between the air chamber and the ink chamber when the air communication valve is closed.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Terasawa in the Yuji ink cartridge for the purpose of maintaining air layer of constant volume in an ink chamber to assure air evacuation .

Allowable Subject Matter

Claims 1-27 and 37-42 would be allowable. These claims would be allowable because none of the prior art references of record discloses an ink cartridge for an ink jet recording device comprising an ink suction passage fluidly connecting a lower section ink chamber of a container to an upper section ink chamber of the container, the lower section ink chamber being located upstream of the upper section ink chamber with respect to a direction of ink flow through the ink suction passage and a negative pressure generating mechanism being disposed in the container, and disposed within an ink flow passage in the combination as claimed.

Claims 31-34 would be allowable if provide a terminal disclaimer. These claims would be allowable because none of the prior art references of record discloses an ink cartridge for an ink jet recording device comprising an air chamber that is connected to an ink chamber by a vent passage, and an air communication valve includes a valve member that is disposed in the vent

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passage, the valve member facilitating the sealing of a lower portion of the vent passage in the combination as claimed.

Claims 35-36 would be allowable if provide a terminal disclaimer. These claims would be allowable because none of the prior art references of record discloses an ink cartridge for an ink jet recording device comprising an air chamber that is in fluid communication with the ambient atmosphere via a capillary passage defined in the surface of an ink container in the combination as claimed.

Claims 43-47 and 48-68 are allowable. These claims would be allowable because none of the prior art references of record discloses an ink cartridge for an ink jet recording device comprising an ink suction passage fluidly connecting a bottom region of a lower section ink chamber of a container to a bottom region of an upper section ink chamber of the container and a differential pressure valve and/or a negative pressure generating mechanism disposed within a flow passage fluidly connecting an ink supply port to the upper section ink chamber, and in a region proximate to the upper section ink chamber in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M.to 6:00 P.M.. The fax number of this Group 2861 is (703) 872-9306.


ANH T.N. VO
PRIMARY EXAMINER

June 3, 2005